

WCAG 2.1 A and AA Requirements

Name of Product	HESI Compass
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Document Description	This document rates HESI Compass according to the W3C WCAG 2.1 A and AA requirements.
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Testing Tools and Methods	Hands-on keyboard operation Firebug/Code inspection Firefox Web Developer Toolbar (removing style sheets) JAWS 18 on Mozilla Firefox 63 and MS IE 11 on Windows 10 NVDA screen reader v2019.2.1 Wave Extension Color Contrast Analyzer W3C WAI Pages Elsevier Accessibility Checklist: http://romeo.elsevier.com/accessibility_checklist/
Document Sections	The review document below includes all WCAG 2 A and AA checkpoints and is organized into 6 logical sections: <ul style="list-style-type: none">• Visuals• Keyboard• Headings and Structure• Labeling• Multimedia• Usability
Pages Covered	Header, Footer, Navigation, Study Plan, Talk with Coach, Student Performance, Instructor Performance, Module Lesson List, Onboarding Video, Lesson Content, Lesson Activities, Module Exam, Exam Results
Note from W3C on Conformance	https://www.w3.org/TR/UNDERSTANDING-WCAG20/conformance.html "If there is no content to which a success criterion applies, the success criterion is satisfied." This VPAT shows such criterion as: "Supports (N/A)"
Notes/Terminology	"AT" stands for Assistive Technology such as screen readers, voice input, etc.

WCAG 2.1 Success Criterion	Level	Evaluation
1.1.1: Non-text Content	A	Partially supports
1.2.1: Audio-only and Video-only (Prerecorded)	A	Supports (N/A)
1.2.2: Captions (Prerecorded)	A	Partially supports
1.2.3: Audio Description or Full Text Alternative	A	Does not support
1.2.4: Captions (Live)	AA	Supports (N/A)
1.2.5: Audio Description	AA	Does not support
1.3.1: Info and Relationships	A	Partially supports
1.3.2: Meaningful Sequence	A	Supports
1.3.3: Sensory Characteristics	A	Supports
1.3.4 Orientation (2.1)	AA	Supports
1.3.5 Identify Input Purpose (2.1)	AA	Supports (N/A)
1.4.1: Use of Color	A	Partially supports
1.4.2: Audio Control	A	Supports (N/A)
1.4.3: Contrast (Minimum)	AA	Partially supports
1.4.4: Resize text	AA	Supports
1.4.5: Images of Text	AA	Supports
1.4.10 Reflow (2.1)	AA	Supports
1.4.11 Non-Text Contrast (2.1)	AA	Supports
1.4.12 Text Spacing (2.1)	AA	Supports
1.4.13 Content on Hover or Focus (2.1)	AA	Supports (N/A)
2.1.1: Keyboard	A	Partially supports
2.1.2: No Keyboard Trap	A	Supports
2.1.4 Character Key Shortcuts (2.1)	A	Supports (N/A)
2.2.1: Timing Adjustable	A	Supports
2.2.2: Pause, Stop, Hide	A	Supports (N/A)
2.3.1: Three Flashes or Below Threshold	A	Supports (N/A)
2.4.1: Bypass Blocks	A	Partially supports
2.4.2: Page Titled	A	Partially supports
2.4.3: Focus Order	A	Partially supports
2.4.4: Link Purpose (In Context)	A	Partially supports
2.4.5: Multiple Ways	AA	Supports
2.4.6: Headings and Labels	AA	Supports
2.4.7: Focus Visible	AA	Partially supports
2.5.1 Pointer Gestures (2.1)	A	Supports (N/A)
2.5.2 Pointer Cancellation (2.1)	A	Supports (N/A)
2.5.3 Label in Name (2.1)	A	Supports
2.5.4 Motion Actuation (2.1)	A	Supports (N/A)
3.1.1: Language of Page	A	Supports
3.1.2: Language of Parts	AA	Supports
3.2.1: On Focus	A	Supports

WCAG 2.1 Success Criterion	Level	Evaluation
3.2.2: On Input	A	Supports
3.2.3: Consistent Navigation	AA	Supports
3.2.4: Consistent Identification	AA	Supports
3.3.1: Error Identification	A	Supports
3.3.2: Labels or Instructions	A	Partially supports
3.3.3: Error Suggestion	AA	Supports
3.3.4: Error Prevention (Legal, Financial, Data)	AA	Supports
4.1.1: Parsing	A	Supports
4.1.2: Name, Role, Value	A	Partially supports
4.1.3 Status Messages (2.1)	AA	Supports (N/A)

Visuals		
WCAG 2.1 Checkpoint	Supporting Features	Remarks
1.1.1: Non-Text Content (A) Provide text alternatives for non-text content (e.g. images)	Partially supports	Most images and icons have appropriate text equivalents. Exceptions: Navigation: The ClinicalKey Nursing link external arrow does not have alternative text. Student Performance: The external link arrow for HESI Exams does not have alternative text. Module Lesson List: The external link arrows for extra practice links do not have alternative text. The completed symbol does not communicate anything to assistive technology. Lesson Content: The lesson images (ones with labelling or describing something important) do not have enough alt text to properly describe the image.
1.3.3: Sensory Characteristics (A) Do not rely on sensory characteristics of components such as shape, size, visual location, orientation, or sound	Supports	There are no instructions or areas of content which rely solely on sensory characteristics.
1.4.1: Use of Color (A) Color is not used as the only visual means of conveying info	Partially supports	Color is not used as the only means of conveying information in most areas. Exceptions: Study Plan: The various risk color coding of modules is only communicated through a color change.

		Talk with Coach: The "Slack" link is a link that is too similar of a color to the surrounding text with a contrast of 2.53:1. There needs to be a minimum of 3.0:1 for this comparison.
1.4.3: Color Contrast (Minimum) (AA) Text has enough contrast with the background (4.5:1 for small text and 3:1 for large text)	Partially supports	Text has enough contrast with its corresponding background in most areas. Exceptions: Study Plan: The white text on orange background for the modules scores does not have enough contrast at 3.07:1. Student Performance: The currently selected tab does not have enough contrast with the white background at 3.28:1. Exam Results: The "Correct Answer" text does not have enough contrast at 3.2:1. The currently selected tab does not have enough contrast with the white background at 3.28:1
1.4.4: Resize Text (AA) Text can be enlarged up to 200% without loss of functionality.	Supports	Text can be enlarged to 200% and content remains functional.
1.4.5: Images of Text (AA) Text is used rather than images of text, except where the presentation of text is essential, such as logos	Supports	No images of text are used other than for Logos or essential presentation.
1.4.10 Reflow (AA) Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for: Vertical scrolling content at a width equivalent to 320 CSS pixels; Horizontal scrolling content at a height equivalent to 256 CSS pixels.	Supports	HESI Compass uses a responsive view that properly scrolls in only one direction once width reaches low CSS pixels.
1.4.11 Non-Text Contrast (AA) User interact components and graphical objects have	Supports	All non-text UI components and graphical objects have at least a 3:1 contrast ratio.

<p>a contrast ratio of at least 3:1 against adjacent color(s).</p>		
<p>1.4.12 Text Spacing (AA) In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all the following and by changing no other style property:</p> <p>Line height (line spacing) to at least 1.5 times the font size; Spacing following paragraphs to at least 2 times the font size; Letter spacing (tracking) to at least 0.12 times the font size; Word spacing to at least 0.16 times the font size.</p>	<p>Supports</p>	<p>The site allows users to adjust the text spacing without causing loss of content or functionality.</p>
<p>1.4.13 Content on Hover or Focus (AA) Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true:</p> <ul style="list-style-type: none"> • Dismissable • Hoverable • Persistent 	<p>Supports (N/A)</p>	<p>There is no content that appears on hover or focus.</p>
<p>2.3.1: Three Flashes or Below Threshold (A) No more than three flashes in a 1-second period, or the flashes are below the defined thresholds</p>	<p>Supports (N/A)</p>	<p>No flashing content exists.</p>

Keyboard

WCAG 2.1 Checkpoint	Supporting Features	Remarks
1.3.2: Meaningful Sequence (A) The correct reading sequence can be programmatically determined	Supports	The correct reading sequence is usually logical with the DOM order matching the visual order.
2.1.1: Keyboard (A) All functionality is available from a keyboard, except for tasks such as drawing	Partially supports	Most content is keyboard operable. Exceptions: Lesson Content: The Calculator is made using <canvas> and is not keyboard operable. The Glossary content is not keyboard operable at all. Module Exam: The using the arrow keys when on the radio buttons should change the selection as well as move focus. Instructor Performance: Pressing any key when focused on a table expand/collapse button causes it to activate, it should only activate with Enter or Spacebar.
2.1.2: No Keyboard Trap (A) The user can use the keyboard to move through page elements and is not trapped on a particular element	Supports	No pages have a keyboard trap.
2.1.4 Character Key Shortcuts (A) If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters, then at least one of the following is true: <ul style="list-style-type: none"> • Turn off • Remap • Active only on focus 	Supports (N/A)	The site does not use any character key shortcuts.
2.4.3: Focus Order (A) Users can tab through the elements of a page in a logical order	Partially supports	Tab order is logical on the site in most areas.

		<p>Exceptions: Student Performance: The tab list should have one tab-stop for the entire tab list.</p> <p>Lesson Content: The modal dialogs trap focus properly when tabbing forwards, but shift-tabbing backwards does not trap focus.</p> <p>Exam Results: The tab list should have one tab-stop for the entire tab list.</p>
<p>2.4.7: Focus Visible (AA) The page element with the current keyboard focus has a visible focus indicator</p>	Partially supports	<p>Most elements have a visible focus indicator. Some elements still use the browser default.</p> <p>Exceptions: Lesson Content: The Enlarge Image link does not have a visible focus.</p>
<p>3.2.1: On Focus (A) When a UI component receives focus, this does not trigger unexpected actions.</p>	Supports	Focusable elements do not cause unexpected actions when receiving focus.
Headers and Structure		
WCAG 2.1 Checkpoint	Supporting Features	Remarks
<p>1.3.1: Information and Relationships (A) Info, structure, and relationships can be programmatically determined</p>	Partially supports	<p>Good use of heading in some places to help distinguish content. Lists are typically used to group related links or text. Landmarks are sometimes used in good places.</p> <p>Exceptions: Talk with Coach: "Want to talk with your coach?" should be an h2.</p> <p>Module Lesson List: The smaller lesson list and extra practice links should not have individual region roles.</p> <p>Module Exam: The text in the header should be an h1 (e.g. "Module 3 Exam; Mental Health Concepts").</p> <p>Instructor Performance: The table is made using div elements, causing the entire table to have no semantic relationships.</p>
<p>2.4.1: Bypass Blocks (A) Users can bypass repeated blocks of content.</p>	Partially supports	<p>Headings and landmarks exist, which allow users using Assistive Technology to jump to the different areas of content quickly.</p> <p>Exceptions: There is no skip to main content link on the site.</p>
<p>2.4.6: Headings and Labels (AA) Headings and labels are clear and consistent.</p>	Supports	Headings and labels used are clear and descriptive. For example, h1 headings are the main purpose of the page.
<p>3.1.1: Language of Page (A)</p>	Supports	The language is defined as lang="en" on all pages.

The language of the page is specified		
3.1.2: Language of Parts (AA) Specify the language of text passages that are in a different language than the default language of the page.	Supports (N/A)	There are no passages of text that differ from the page default.
4.1.1: Parsing (A) Use valid, error-free HTML	Supports	HTML and CSS passes concerning these 4 specific criteria: (i) elements have complete start and end tags, (ii) elements are nested according to their specifications (iii) elements do not contain duplicate attributes (iv) any IDs are unique, except where the specifications allow these features. Note: There are other general HTML validation errors outside the scope of this criterion.

Labeling

WCAG 2.1 Checkpoint	Supporting Features	Remarks
1.3.5 Identify Input Purpose (AA) The purpose of each input field collecting information about the user can be programmatically determined when: The input field serves a purpose identified in the Input Purposes for User Interface Components section; and the content is implemented using technologies with support for identifying the expected meaning for form input data.	Supports (N/A)	There are no pages in HESI Compass that have personally identifying input fields.
2.4.2: Page Titled (A) The page has a title describing its topic or purpose	Partially supports	The title changes dynamically and is typically descriptive. Exceptions: Module Exam: The page title should include that the user is in an exam. Exam Results: The page title should include that the user is looking at a specific exam's results for a user.
2.4.4: Link Purpose (In Context) (A)	Partially supports	Most links used have an identifiable purpose from the link text or surrounding context.

<p>The purpose of each link can be determined from the link text or surrounding context.</p>		<p>Exceptions: Navigation: The ClinicalKey Nursing link needs to indicate in link text that it opens an external link or in a new tab/window. Student Performance: The HESI Exam external links do not indicate they open in new windows/tabs. Module Lesson List: the extra practice links do not indicate that they open in new windows/tabs.</p>
<p>2.5.3 Label in Name (A) For user interface components with labels that include text or images of text, the name contains the text that is presented visually.</p>	<p>Supports</p>	<p>All interface components that have visible text contain that text consistently within the accessible name.</p>
<p>3.2.4: Consistent Identification (AA) UI components used across the web site are identified consistently on every page.</p>	<p>Supports</p>	<p>UI components are consistent across the site. Many pages use the same exact components, resulting in a consistent experience.</p>
<p>3.3.1: Error Identification (A) Input errors are clearly marked and described to the user.</p>	<p>Supports</p>	<p>Error identification happens and is presented well visually. Errors are connected to the appropriate input fields and use error symbols.</p>
<p>3.3.2: Labels and Instructions (A) Items requiring user input are clearly labeled or have clear instructions.</p>	<p>Partially supports</p>	<p>Most input areas have clear labels which are programmatically assigned. Exceptions: Module Exam: The radio buttons for each question are not labelled. Exam Results: The Attempt select is not labelled.</p>
<p>3.3.3: Error Suggestion (AA) When the user makes an input error, give suggestions for valid input.</p>	<p>Supports</p>	<p>The help text given for inputs beforehand, such as password requirements, are sufficient to provide suggestions for valid input.</p>
<p>4.1.2: Name, Role, Value (A) For all UI components, the name, value, and role can be programmatically determined.</p>	<p>Partially supports</p>	<p>Some UI components communicate their state programmatically. Exceptions: Student Performance: The tab list does not have proper ARIA or role markup. The currently sorted table header for each table should have aria-sort. Lesson Content: The Enlarge image links should be a button. It also should not have aria-haspopup="true". The in-lesson links that open</p>

		<p>modal dialogs should be buttons, and also should not have aria-haspopup="true". Modal dialogs should have aria-modal="true". In the module outline, the expand/collapse lesson elements do not have aria-expanded attributes on page load. The lesson elements should also be buttons.</p> <p>Instructor Performance: The expand/collapse table buttons should have aria-expanded.</p> <p>Exam Results: The tab list does not have proper ARIA or role markup.</p>
<p>4.1.3 Status Messages (AA) In content implemented using markup languages, status messages can be programmatically determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus.</p>	Supports (N/A)	There are no status messages of the kind described by this criterion on HESI Compass.
Multimedia		
WCAG 2.1 Checkpoint	Supporting Features	Remarks
<p>1.2.1: Audio-only or Video-only (Prerecorded) (A) Provide alternatives for pre-recorded audio-only or video-only content.</p>	Supports (N/A)	There is no audio-only or video-only content in HESI Compass.
<p>1.2.2: Captions (Prerecorded) (A) Provide captions for pre-recorded audio</p>	Partially supports	<p>The onboarding video has open captions. There are videos in the lesson content that do not have captions.</p> <p>Note: The onboarding video captioning text is mostly white/orange combination, which may not pass color contrast requirements at all times.</p>
<p>1.2.3: Audio Description or Media Alternative (Prerecorded) (A) Provide alternatives for pre-recorded synchronized audio/video</p>	Does not support	There are no alternatives for the Onboarding video. The lesson content videos do not have alternatives.
<p>1.2.4: Captions (Live) (AA)</p>	Supports (N/A)	There is no live audio in synchronized audio/video.

Provide captions for live audio in synchronized audio/video.		
1.2.5: Audio Description (Prerecorded) (AA) Provide an audio description of pre-recorded video.	Does not support	There is no audio description for the Onboarding video. The lesson content videos do not have audio descriptions.
1.4.2: Audio Control (A) Audio can be paused and stopped, or the audio volume can be changed.	Supports (N/A)	There is no audio that plays automatically on the site.
2.2.2: Pause, Stop, Hide (A) Users can stop, pause, or hide moving, blinking, scrolling, or auto-updating information.	Supports (N/A)	There is no moving, scrolling, or auto-updating information.

Usability

WCAG 2.1 Checkpoint	Supporting Features	Remarks
2.2.1: Timing Adjustable (A) Users are warned of time limits shorter than 20 hours and time limits can be turned off or extended	Supports	There is a session timeout for HESI Compass. A modal dialog appears to let the user know that their session is ending soon, giving an option to extend.
2.4.5: Multiple Ways (AA) More than one way is available to navigate to other web pages.	Supports	There are multiple ways to each page, mostly through the main navigation.
3.2.2: On Input (A) Changing the setting of a checkbox, radio button, or other UI component does not trigger unexpected changes in context.	Supports	User inputs do not cause unexpected actions.
3.2.3: Consistent Navigation (AA)	Supports	Navigation menus are consistently in the same place and in same order.

Navigation menus are in the same location and order on every web page.		For example, the navigation has the same links/buttons in the same order.
3.3.4: Error Prevention (Legal, Financial, Data) (AA) For web pages with legal or financial commitments, input can be reviewed and corrected before final submission, and submissions can be reverted.	Supports (N/A)	There are no submissions which require legal or financial commitments.

Mobile User Experience

WCAG 2.1 Checkpoint	Supporting Features	Remarks
1.3.4 Orientation (AA) Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential.	Supports	HESI Compass does not restrict its view to a single orientation.
2.5.1 Pointer Gestures (A) All functionality that uses multipoint or path-based gestures for operation can be operated with a single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential.	Supports (N/A)	HESI Compass does not use any multipoint or path-based gestures.
2.5.2 Pointer Cancellation (A) For functionality that can be operated using a single pointer, at least one of the following is true: <ul style="list-style-type: none"> • No Down-Event • Abort or Undo • Up Reversal • Essential 	Supports	All interactive content functions through the Up-Event, allowing users to potentially move their pointer off the component to cancel.

<p>2.5.4 Motion Actuation (A)</p> <p>Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation, except when:</p> <ul style="list-style-type: none"> • Supported Interface • Essential 	<p>Supports (N/A)</p>	<p>There is no content on HESI Compass that utilizes device or user motion.</p>
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